

REMARKS

Claims 1 through 15 remain pending in this application. Claims 5 through 15 stand withdrawn. Claims 1 through 4 have been rejected. In response to the Office Action, dated May 17, 2004, a Request for Continued Examination is filed herewith and claim 1 has been amended. Allowance of the application is respectfully solicited.

Claims 1 through 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim, of record, in view of newly cited U.S. patent 5,786,260 (Jang). The Office Action describes Kim as disclosing first and second registration marks 10a/10b separated by boundary line 10, and auxiliary marks 10d/c that identify the first and second registration marks. The Office Action recognizes that Kim does not show that the boundary line defines a protruded portion and a recess portion but relies on the Jang disclosure of Fig. 2A for this feature. From this disclosure, the Office Action concludes that it would have been obvious to provide a boundary line that defines a protruded portion and a recessed portion in the dicing line area of Kim. Reconsideration of the rejection in light of the following comments is respectfully solicited.

Independent claim 1, as now amended, recites, *inter alia*, the following:

a boundary line separates said respective registration mark areas, said boundary line defining a protruded portion and a recessed portion, respectively, at opposite directions on either side of the boundary line in a plane parallel to the substrate, the protruded portion containing at least one of the registration marks

The protruded and recessed portions recited in claim 1 are with respect to a direction on either side of the boundary line that lies in a plane parallel to the substrate. The boundary line is exemplified by dotted line 12 in Fig. 6. The protruded and recessed portions are not with respect to sides vertically opposite to the plane. The present invention is effective in preventing occurrence of errors such as mistaking the marks during the inspection step in the wafer process, by specifying the

shot to which the mark belongs. If mistaking of marks were to take place, the inspection step would have to be performed again. According to the present invention, however, such re-doing of the inspection step can be avoided, and consequently, the time period for manufacturing a semiconductor device can effectively be shortened.

The Kim device is completely different from the semiconductor device according to the claimed invention, which is manufactured by performing exposure on a plurality of areas on a wafer in different shots. The alignment mark in Kim is used for registration in layering the upper and lower substrates for the liquid crystal panel, and is completely different from the registration marks of the claimed invention. There is no teaching in Kim that marks 10d and 10c are considered auxiliary marks that identify, respectively, marks 10a and 10b. Rather, Kim merely states, at column 1, lines 49+, that the four alignment marks are spaced from each other by a predetermined distance.

With respect to Jang, portions 50 and 40 (Fig. 2A) are vertically displaced from each other with respect to a plane parallel to the wafer surface. There is no teaching of protrusion or recession with respect to a boundary line in the plane. It is submitted, therefore, that even if the teachings of Kim and Jang were to be combined as proposed in the Office Action, a person of ordinary skill in the art would not have been led to the invention claimed.

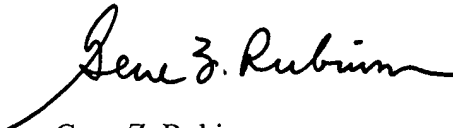
Accordingly, it is submitted that claims 1 through 4 are patentably distinguishable. Allowance of the application is respectfully solicited. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in

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connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, reading "Gene Z. Robinson". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

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